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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/517,961	03/03/2000	Diheng Qu	CISCO-1936	5733

7590 05/26/2004

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EXAMINER	
HENEGHAN, MATTHEW E	
ART UNIT	**PAPER NUMBER**
2134	

DATE MAILED: 05/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/517,961	QU ET AL.	
	Examiner	Art Unit	
	Matthew Heneghan	2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 March 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. In response to the first office action, Applicant has amended claims 1-4, 8, and 17. Claims 1-25 have been examined.

Drawings

2. The drawings were received on 29 March 2004. These drawings are acceptable.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-25 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 7, 24, and 25 of U.S. Patent

No. 6,219,706 to Fan et al. Although the conflicting claims are not identical, they are not patentably distinct from each other.

Regarding claims 1, 2, 8, 13, 17, and 22, Fan et al. discloses in claim 24 the tracking of TCP and UDP sessions in a manner that would require the instantiation of mini-sessions in the switch, and it would be obvious to one of ordinary skill in the art to do this by examining header information from the payloads.

Regarding claims 3, 14, and 23, the method of deleting completed processes in order to free memory space and conserve CPU time is well-known in the art. It would be obvious to one of ordinary skill in the art to delete completed sessions.

Regarding claims 4, 6, 7, 9, 18, and 20, the invention disclosed by Fan decides whether or not to examine the packet depending on whether or not certain conditions are met. The method of setting flags in a packet header in order to affect treatment of a packet further downstream is well-known in the art, and the implementation of a "pass" or "do not divert" flag would therefore be obvious.

Regarding claims 5, 10-12, 19, and 21, Fan discloses the use of access control lists in claim 7.

Regarding claims 15, 16, 24, and 25, Fan discloses the disabling of timed-out sessions in claim 25. It would be obvious to one of ordinary skill in the art to delete the session without communicating with the firewall module.

Terminal Disclaimer

4. The terminal disclaimer filed on 29 March 2004 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S. Patent No. 6,219,706 has been reviewed and is NOT accepted.

The person who signed the terminal disclaimer is not recognized as an officer of the assignee, and he/she has not been established as being authorized to act on behalf of the assignee. See MPEP § 324.

An attorney or agent, not of record, is not authorized to sign a terminal disclaimer in the capacity as an attorney or agent acting in a representative capacity as provided by 37 CFR 1.34 (a). See 37 CFR 1.321(b) and/or (c).

The only attorney of record at present with respect to the instant application is Jonathan Velasco.

Allowable Subject Matter

5. Claims 1-25 would be allowable if rewritten or amended to overcome the rejections regarding double patenting set forth in this Office action, or if a new terminal disclaimer were filed, as discussed above, for the reasons stated by the Applicant in Paper No. 7, pp. 9-16.

Response to Arguments

6. Applicant's arguments, see Paper No. 7, filed 29 March 2004, with respect to the rejections of claims 1-25 under 35 U.S.C. 102, 35 U.S.C. 103, and 35 U.S.C. 112 have been fully considered and are persuasive in view of Applicant's amendments. The rejections of claims 1-25 under 35 U.S.C. 102, 35 U.S.C. 103, and 35 U.S.C. 112 have been withdrawn.

7. Regarding Applicant's traversal of rejections of claims 14 and 23 (see Paper No. 7, pp. 14-15), MPEP § 2144.03, Part C, regarding Official Notice, states that:

> To adequately traverse such a finding, an applicant must specifically point out the supposed errors in the examiner's action, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art.

In traversing the use of Official Notice, the Applicant has made no such statement. Though the allowability of the respective base claims as over the prior art now makes these rejections moot, it is noted that the use of Official Notice in this instance would have been maintained without the providing of further evidence by the Examiner. A more detailed explanation of the reasoning behind the Official Notice is presented herein:

In most modern programming languages, resources are allocated to a process when it is executed, which may include memory space allocated from the stack and/or from the heap, as well as a "time slice," wherein the computer's multitasking operating system dedicates a number of CPU cycles to the process. When a process is no longer needed because all of its functionalities are no longer needed or have become moot, it is common for the process to terminate itself (by using the C language statement "exit,"

for example), in order that the operating system may then allocate the resources that had been allocated to that process to other existing or subsequent processes. Any computer that were not to do so routinely would eventually run out of memory (known in the art as "a memory leak") or use up so much CPU time tending to unused resources that it would hurt the performance of other processes (known in the art as "starvation").

Since it is technically possible to create a computer-based invention that does not do this (if the computer is solely dedicated to a single-threaded function or, alternatively, if the software is defective), this property cannot be deemed to be inherent; nonetheless, the practice of deleting spent processes is so pervasive in the art that most references in the art do not bother to mention it. It is for this reason that Official Notice has been taken.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6,680,941 to Schmitz discloses the setting up of filtering sessions in a gateway in a packet-switched network, but does not disclose the employment of a plurality of mini-sessions.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew E. Heneghan, whose telephone number is (703) 305-7727. The examiner can normally be reached on Monday-Thursday from 8:00 AM - 4:00 PM Eastern Time. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse, can be reached on (703) 308-4789.

Any response to this action should be mailed to:
Commissioner of Patents and Trademarks
P.O. Box 1450
Alexandria, VA 22313-1450
Or faxed to:
(703) 872-9306
Hand-delivered responses should be brought to Crystal Park 2, 2121 Crystal Drive, Arlington, VA 22202, Fourth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

MEH

May 21, 2004

GREGORY MORSE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100